

REMARKS

In reply to the Office Action of June 2, 2006, applicant submits the following remarks. Claims 1-28 are pending, with claim 1 being independent. Applicant has amended claims 4, 11, 14, 17, 19, 20, 21, and 23; and has added claims 25-28. Support for the amendments and the new claims can be found in the specification at least at page 5, line 25 to page 6, line 6; page 6, lines 24-31; page 7, lines 8-10; page 11, lines 7-11; Figure 2; and Figure 3. No new matter has been added.

Applicant acknowledges with appreciation the Examiner's indication that claims 7-22 recite allowable subject matter.

Claim Objections

Claims 5-10, 23, and 24 have been objected to because the terms "the input shaft" and "the pointer" found in claim 23 lack antecedent basis. Applicant has amended claim 23 to depend from claim 4, which introduces the terms "input shaft" and "pointer", and therefore provides the requisite antecedent basis to these terms. Accordingly, applicant requests withdrawal of the objection to claim 23 and its dependent claims 5-10 and 24.

Claim Rejections – 35 U.S.C. §103(a)

Claims 1-6, 23, and 24 have been rejected as being obvious over U.S. Patent No. 3,092,071 (Simpson) in view of U.S. Patent No. 5,506,791 (Hungerford). Applicant requests withdrawal of this rejection because Simpson, Hungerford, or any proper combination of these references, fails to describe or suggest a one-piece clear polymer cover enclosing a position indicator display and mechanism in a polymer housing, as recited in claim 1. Furthermore, one of ordinary skill in the art would not have been motivated to modify Simpson in the manner suggested in the Office Action.

Independent claim 1 relates to a position indicator. The position indicator includes a position indicator display and mechanism, a polymer housing, and a one-piece clear polymer cover. The polymer housing houses the position indicator display and mechanism. The one-

piece clear polymer cover encloses the position indicator display and mechanism in the polymer housing.

In Simpson, a device 10 has a movable part 11 that may occupy a variety of positions. See Simpson at col. 2, lines 57-59 and Fig. 1. Simpson describes a remote indicator 20 that displays the movement of the movable part 11 on a dial face 22. See Simpson at col. 3, lines 3-9 and Fig. 2. The indicator 20 includes a housing 21 and a pointer 23 mounted on the dial face 22 to display the movement of the movable part 11. See Simpson at col. 3, lines 4-9 and Fig. 2. However, Simpson does not disclose a cover of any sort that encloses the pointer 23 and the dial face 22 in the housing 21. Realizing this deficiency in Simpson, the Examiner relies on Hungerford to show a one-piece clear polymer cover, suggesting that it would have been obvious to modify Simpson with the teachings of Hungerford. Applicant disagrees for the reasons discussed below.

Hungerford relates to a fluid flow monitoring apparatus. See Hungerford at col. 1, lines 18-20. Hungerford's apparatus measures fluid flow-related variables from multiple types of fluid-flow sensors that are attached to a case 1. See Hungerford at col. 1, lines 20-22. The apparatus includes the case 1 that houses the electronic and mechanical components of the apparatus, including an operating panel 2 that includes a keypad 3, a liquid crystal display 4, and push buttons 5. See Hungerford at col. 6, lines 25-27 and lines 32-36 and Figs. 1 and 2. The case 1 includes a transparent door 6 that provides additional protection for the operating panel 2 when the door 6 is closed. See Hungerford at col. 6, lines 41-43 and Figs. 1 and 2. However, Hungerford's door 6 does not enclose a position indicator display and mechanism in a polymer housing, as recited in claim 1. Rather, Hungerford's door 6 covers the operating panel 2, which is not a position indicator display and mechanism.

Moreover, there is no suggestion in the cited references to modify the housing 21 of Simpson to include the door 6 of Hungerford. The Examiner states:

it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the housing for the position indicator, taught by Simpson, Jr. et al., by making the housing a polymer housing, and adding a one piece clear polymer cover, a hinge and a latch to the housing, as suggested by Hungerford et al., in order to provide impact resistance, resistance to stresses from mounting and harsh conditions, dust resistant and

corrosion resistant, as taught by Hungerford et al., and to allow easier servicing of the components of the position indicator when needed.

The benefits enumerated above do not provide the requisite motivation for modifying Simpson with Hungerford.

First, Simpson lacks a cover that encloses the pointer 23 and the dial face 22 in the housing 21. Thus, Simpson implicitly teaches away from the use of a cover.

Second, Hungerford does not use the door 6 to achieve the benefits enumerated above. Rather, Hungerford achieves dust resistance and corrosion resistance by sealing the case 1. See Hungerford at col. 6, lines 45-48. Indeed, Hungerford's case 1 remains sealed even when the door 6 is open. Furthermore, the door 6 does not provide impact resistance or resistance to mounting stresses. Rather, the case 1 provides these benefits. See Hungerford at col. 6, lines 27-31. Moreover, there is no indication in Hungerford that the door 6 allows easier servicing of the fluid-flow monitoring apparatus. Because Hungerford does not describe or suggest a door that provides such advantages, one of ordinary skill in the art would not be motivated to modify Simpson with Hungerford's door.

Third, the benefits Hungerford describes for using the door 6 merely provide motivation for using the door 6 in Hungerford's apparatus and do not provide the requisite motivation for adding a cover to Simpson's device. Hungerford explains that Hungerford's door 6 provides some addition minimal protection for components within the case 1 because the case 1 is used in an extreme environment. See Hungerford at col. 8, lines 13-15 and Fig. 6 (showing Hungerford's apparatus mounted in a sewer manhole). However, because there is no indication that Simpson's device is used in such an extreme environment or that Simpson's device should include a cover, there is no suggestion in either Simpson or Hungerford to add Hungerford's door to Simpson's device.

For at least these reasons, claim 1 is allowable over any proper combination of Simpson and Hungerford. The dependent claims 2-6, 23, and 24 are allowable for at least the reasons that claim 1 is allowable, and for containing allowable subject matter in their own right. For example, claim 24 recites that "the drive mechanism is non-linear such that the angular velocity

of the input shaft is not directly related to the angular velocity of the pointer." Simpson and Hungerford do not describe or suggest such a non-linear drive mechanism.

New Claims

New claims 25-28 depend from claim 1 and are allowable for at least the reasons that claim 1 is allowable, and for containing allowable subject matter in their own right. For example, claim 25 recites "a compliant gasket positioned within a groove in the polymer housing such that the gasket interfaces with a circumferential lip around the one-piece clear polymer cover to provide a seal between the polymer housing and the cover." Simpson and Hungerford do not describe or suggest such a circumferential lip around a one-piece polymer cover. As noted above, Simpson does not include a one-piece polymer cover. Additionally, Hungerford's apparatus is sealed even when the door 6 is open. Thus, Hungerford also does not disclose such a circumferential lip around door 6.

Conclusion

In conclusion, applicant submits that all claims are in condition for allowance, and respectfully requests a notice to that effect.

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The fee in the amount of \$650 in payment of the two-month extension of time fee (\$450) and the excess claim fees (\$200) is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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